

# Research on the Influence of Emotional Labor Strategy used by Public Transportation Employee on Service Satisfaction

Ming-Hsiung Wu, Yu-Hsi Yuan

**Abstract**—The aim of the research is to understand whether the accuracy of customer detection of employee emotional labor strategy would influence the overall service satisfaction. From path analysis, it was found that employee's positive emotions positively influenced service quality. Service quality in turn influenced Customer detection of employee emotional deep action strategy and Customer detection of employee emotional surface action strategy. Lastly, Customer detection of employee emotional deep action strategy and Customer detection of employee emotional surface action strategy positively influenced service satisfaction. Based on the analysis results, suggestions are proposed to provide reference for human resource management and use in relative fields.

**Keywords**—Emotional labor, Emotional deep action strategy, Emotional surface action strategy, Service satisfaction

## I. INTRODUCTION

### A. Research Motivation

RECENT researches on service management focus more and more on the influence of emotions during a service, especially the employee's emotional labor when providing the service. Reference [15] mentioned that the issue has gained high attention from various researchers who emphasized on the understanding of whether service organizations could use more effective employee emotion management to provide "service with a smile" to customers. Reference [18] proposed concepts relating to emotional labor. Among them, deep acting refers to one trying to modify one's inner emotion and feeling in order to show the true inner emotion. It means one is convincing oneself to accept the emotion and feeling while showing the expected emotion. Surface acting on the other hand refers to one showing disguised or exaggerated emotion instead of one's true emotion. The above two actions represent employee's main emotion regulation strategies in order to meet the expected emotional display [21], [22].

Specifically speaking, whether the employee's emotion would influence customer's perceived service quality, which in turn influences their feedback for service quality, is discussed in the research.

M. H. Wu is with the China University of Science and Technology, Taipei, 11581, Taiwan (R.O.C.). He is now with the Department of Business Administration (phone:+886910163076; fax:+88626546139; e-mail:t07011@cc.cust.edu.tw).

Y. H. Yuan, Jr is with the Hwa Hsia Institute of Technology, New Taipei City, 235, Taiwan (R.O.C.). He is now with the Department of Information Management (e-mail: yuc88g@gmail.com).

### B. Research Purpose

The purpose of the research is to discuss the influence of Taipei City bus drivers' emotional labor strategies on service satisfaction. The influence of the bus drivers' positive and negative emotions on the customer's perceived service quality and service satisfaction and their relationships are further analyzed. Moreover, the influence models between the influence factors are analyzed using the questionnaire sample data.

### C. Research Scope and Limitation

The scope and limitations of the research are described in the following:

- 1) The research samples are Taipei City residents only which means the results cannot be inferred to other cities.
- 2) The research uses the research samples to understand the influence of Taipei City bus drivers' emotional labor on commuter's perceived service quality and service satisfaction which means the results cannot be inferred to other psychological issues.

## II. LITERATURE REVIEW

### A. Theoretical Background

#### 1) Influence of emotion when providing service

The research [27] supported the correlation between employee's positive emotions (positive greeting and eye contact etc) and customer satisfaction. Their research focused on the explicitness of emotion and mainly discussed whether friendly service and obvious interaction led to customer's positive feedback. Based on the outcome of literature review, there are only three researches that discuss in-depth the way emotional labor strategies influence the service outcome [16], [20]. During the research process on emotional contagion, reference [20] found important influences of employee's true emotion when stimulating customer-emotion services. Although the important findings relating to the issue are found in the researches, the researchers did not accurately detect the influence of emotional labor on customer's in-store consumption experience and did not accurately detect whether the customer can correctly identify the authenticity of the emotions.

#### 2) Influence of emotion on emotional labor

Researches regarding emotional labor emphasize on discussing the process of self-regulatory to allow employee to show the emotion that meets the organization's expectation.

Service organizations often have clear or implied emotional display rules for which the rules or standard behavior requirements are used to indicate the emotions that are appropriate to show in front of customers and the emotions that should be suppressed [21], [24].

When deep acting, employee would try to show his/her true feeling though not every attempt is successful. However, in addition to showing emotion by surface acting, deep acting is more likely to be the representation of true emotion. In particular, the key point valued the most is the way the employee changes his/her true feeling when he/she only tries to change the external emotion and not show the true emotion.

When surface acting, frustrated employee may conceal the frustration and simply smile to annoying customers. Therefore, putting on a mask does not truly change the inner feeling and performance. The employee is rather faked and is not showing the true emotion [16]. Deep action and surface action strategies are important theoretical bases of social psychology, for which the concept comes from emotion regulation [6], [14], [17].

### 3) Emotion recognition

Emotion recognition has become an extensive research issue in social psychology. Emotional Intelligence quotient in particular is still the most reliable testing measure [13]. Research data shows human can obtain the ability to gain important work result and performance by understanding non-language behavior and detecting reactions disguised by emotion [12], [13]. Basically, although one can find the true emotion among disguised emotions, most of the judgments are tended to be wrong [8]–[11].

### 4) Theoretical model that influences emotional labor strategies and customer detection accuracy

The emotion management of onsite employees has been confirmed to be an important factor that maintains the service quality and service satisfaction [2], [26]. While a service is being delivered, the experience and perception toward emotion strongly influence customer's feedback for the quality of the service received [23], [25]. Reference [14] explored employee's emotional labor strategies of deep acting and surface acting and found they influenced the service quality and service satisfaction respectively. The two emotional labor strategies establish customer's perception toward service quality and develop the connection between customer loyalty and the corresponding service organization.

Reference [19] proposed that service quality is highly related to the establishment of excellent service satisfaction. Furthermore, researches have proved that if the employee has customer-oriented attitude and behavior and if the service organization wants to keep customer's loyalty toward it [7], [19], service quality is the main factor that determines service satisfaction [29].

### B. Conclusion from Literature Review

From Literature Review above, it is known that when providing services, employees in the service industry are influenced by self-emotion for which the impact on customers is particularly significant. In modern society where the competition is aggressive, apart from putting every effort in

developing new customers, businesses have realized the importance of keeping valuable existed customers. Thus, they have been devoting themselves in counseling and managing the employee's emotions. After conducting literature review, it is found that employee's positive emotions and employee's negative emotions directly influence service quality. Moreover, service quality directly influences customer detection of employee emotional surface action strategy and customer detection of employee emotional deep which in turn influence service satisfaction.

*Based on the above findings, the following hypotheses are proposed:*

- H1: The bus driver's (employee) positive emotions will positively influence the passenger's (customer) perceived service quality.
- H2: The bus driver's (employee) negative emotions will negatively influence the passenger's (customer) perceived service quality.
- H3: Service quality will positively influence the passenger's (customer) detection of the bus driver's emotional deep action strategy.
- H4: Service quality will positively influence the passenger's (customer) detection of the bus driver's emotional surface action strategy.
- H5: The passenger's (customer) detection of the bus driver's emotional deep action strategy will positively influence service satisfaction.
- H6: The passenger's (customer) detection of the bus driver's emotional surface action strategy will positively influence service satisfaction.

## III. METHOD

### A. Research Target and Sampling Method

#### 1) Sample source

The research targets were recruited through convenience sampling. Online questionnaire were distributed to invite Taipei City residents to fill in the questionnaire via the Internet. A total of 98 effective questionnaires were returned. In addition, the research team visited Taipei City bus drivers who were responsible for the routes mentioned by the questionnaire answerers in May 2011 to conduct paper-form questionnaire investigation. A total of 52 effective questionnaires were returned. After integrating the two sets of data, they were used as the research data for later analyses.

#### 2) Questionnaire distribution

After the questionnaire was developed, the research team used convenience sampling and sent the website address of the online questionnaire via email to Taipei City residents as the invitation to invite them to fill out the questionnaire. The answering duration for the online questionnaire was a total 25 days from 16th of April 2011 to 10th of May 2011.

## IV. RESEARCH TOOL DEVELOPMENT

### A. Citation of Research Tool

The research tool was composed of 18 questions, divided in 6

main categories. The category, Employee's positive emotions, was measured by 3 questions; Employee's negative emotions was measured by 3 questions; Service quality was measured by 2 questions; Customer detection of employee emotional deep action strategy was measured by 3 questions; Customer detection of employee emotional surface action strategy was measured by 3 questions; Service quality was measured by 4 questions.

#### B. Reliability of the Research Tool

For the reliability testing of the scale used in the research, it is shown in Table I. A total of 98 effective samples were used in the research for which the reliability coefficient was between .667~.891. Among the categories in the questionnaire, the one with the lowest reliability coefficient was Employee's positive emotions (Cronbach's  $\alpha=.677$ ) and the one with the highest reliability coefficient was Service quality (Cronbach's  $\alpha=.891$ ). Moreover, the reliability coefficient of the overall scale was .888. Based on the results of the internal consistency reliability analysis, it is shown that in addition to Employee's positive emotions meeting the reliability standard, the Cronbach's  $\alpha$  for other categories and the overall scale were above .70 which means the scale has stable reliability.

TABLE I  
SUMMARY TABLE OF THE COMPARISON BETWEEN THE RELIABILITY COEFFICIENTS OF THE QUESTIONNAIRE CATEGORIES

Category	No. of Questions	Composite Reliability Coefficient in the Research done by Groth et al. (2009) (n=285)	Cronbach's $\alpha$ (n=98) in the Present Research
Employee's Positive Emotions	3	.90	.667
Employee's Negative Emotions	3	.92	.819
Service Quality	2	.94	.891
Detection of Deep Action	3	.92	.731
Detection of Surface Action	3	.93	.878
Service Satisfaction	4	.94	.754
Overall Scale	18	---	.888

Information Source: Collected by the research

#### C. Research Framework

In the research, Taipei City commuters were used as the sample to discuss the research framework proposed by reference [18]. The research framework was modified into the framework used in the research as shown in Figure 1.

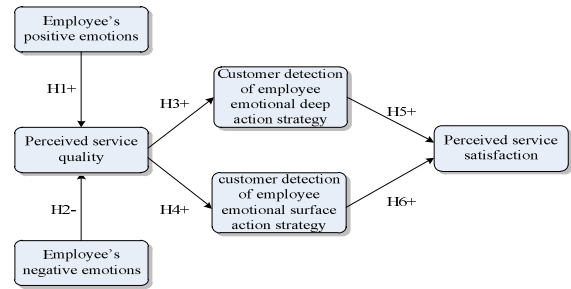


Fig. 1 Research Framework

#### D. Implementation Procedure

The research procedure is shown in Figure 2.

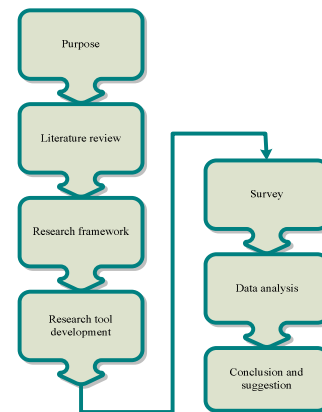


Fig. 2 Research Procedure

Based on the research motivation and research purpose, relative literature were collected to plan the research framework and design the questionnaire. After questionnaire investigation and analysis were carried out, hypothesis verification and deduction were conducted and conclusion and suggestion were proposed at the end.

#### V. RESULT

##### A. Descriptive Analysis

The results obtained from descriptive analysis on the research sample background are shown in Table II.

TABLE II  
RESULTS FROM DESCRIPTIVE ANALYSIS ON RESEARCH SAMPLE BACKGROUND (N=98)

Item	Group	No. of People	%	Missing Value
Gender	Female	62	63.27	0
	Male	36	36.74	
Age	< 18	16	16.33	0
	19~30	72	73.47	
	> 31	10	10.20	
Identity	Student	64	65.31	0
	Office Worker	21	21.43	
	Unemployed	13	13.27	

Information Source: Collected by the research

Based on the gender of the subjects, there were 36 male samples (36.74%) and 62 female samples (63.27%). From the result of the descriptive analysis, it is known there were more female than male subjects. Based on the age of the subjects, the analysis result shows most of the subjects were between 19 to 30 years old (73.47%) and only a few subjects were older than 31. It indicates most of the questionnaire answerers were young people, who are also the main group of people that take buses. Moreover, based on the identity of the subjects, it is shown that most of the subjects were students (65.31%) and only a few subjects were unemployed. It means most of the questionnaire answerers were students and office workers.

### B. Structural Equation Model

The standardized path coefficient analysis for the model is shown in Figure 3 and the model fit indices are shown in Table III.

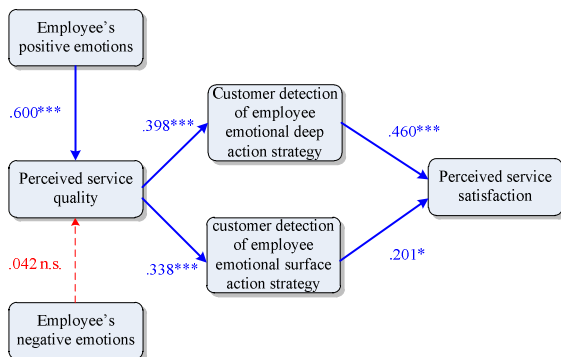


Fig. 3 Standardized Path Coefficients for the Research Model

From the standardized path coefficients of the research model shown in Figure 3, it is found that Employee's positive emotions significantly influenced Service quality ( $\beta = .600$ ;  $p > .001$ ) which means H1 is taken to be true. Employee's negative emotions did not significantly influence Service quality ( $\beta = .042$ ;  $p > .05$ ) which means H2 is taken to be wrong. Moreover, Service quality influenced Customer detection of employee emotional deep action strategy ( $\beta = .398$ ;  $p < .001$ ) and Customer detection of employee emotional surface action strategy ( $\beta = .338$ ;  $p < .001$ ) which means H3 and H4 are taken to be true. Lastly, Customer detection of employee emotional deep action strategy ( $\beta = .460$ ;  $p < .001$ ) and Customer detection of employee emotional surface action strategy ( $\beta = .201$ ;  $p < .05$ ) influenced Service satisfaction which means H5 and H6 are taken to be true. The values of model fit index established in the research are summarized in Table III.

The model fit indices of the theoretical model in sequence are: The Chi-square ( $\chi^2$ ) was 5.181 and was not significant ( $p > .05$ ) which meant the model fit was not rejected [1]. Moreover, the Chi-square (degree of freedom) ratio was 1.727 which was smaller than 3. Based on the determination standard proposed by reference [28], it means the model was a good fit.

The CFI was .990 which was higher than .90. It means the model was a good fit [4]. The GFI was .983 which was higher than .90. It means the model was a good fit [3]. The SRMR was .036 which was smaller than .050. It means the model was a good fit [5]. In general, the entire model fit indices of the model established in the research met the standard for a good fit. It shows the model established in the research is true.

## VI. CONCLUSION AND SUGGESTION

TABLE III  
SUMMARY TABLE OF VALUE OF MODEL FIT INDEX

Model fit indices	Value of model fit index	Result
$\chi^2$	5.181 ( $p > .05$ )	Good fit
$\chi^2/df$	5.181/3 = 1.727	Good fit
CFI	.990	Good fit
IFI	.990	Good fit
GFI	.983	Good fit
SRMR	.036	Good fit

Information Source: Collected by the research

### A. Overall discussion on the Research Results

As confirmed by both literature review and analysis result, it is shown that bus driver's (employee) positive emotions would influence passenger's perceived service quality. On the other hand, bus driver's negative emotions would not improve passenger's perceived service quality. Moreover, due to perceived service quality, the passenger can detect the emotional labor strategy the bus driver uses. Lastly, the passenger would decide the service satisfaction toward the bus driver from the bus driver's emotional labor strategy he/she detected.

### B. Contribution of the Results

In terms of practical implementation, the analysis results show that customers in general are able to clearly detect employee's emotional strategy and it would reflect on customer's perceived service quality. Therefore, when training employees, businesses should strengthen employee's emotion management and emphasize on how employees could serve customers with sincere attitude from the inside. That way the service quality would be improved which would increase the service satisfaction and strengthen the customer loyalty to better the business profit and reach the goal of sustainable management.

In terms of academic research, the scale established for employee's emotional labor strategies has excellent reliability. It can be used to carry out further academic research to find out the difference and similarity in the employee's emotional labor strategy detected by customers in Taiwan and in overseas countries. It can also be used to analyze the difference between various industries. The scale can even be modified more to seek more accurate measurement results. Large amount of samples could be used to establish the norms for the scale and develop the scale into a universal evaluation tool.

## REFERENCES

- [1] H. J. Chiou, *Principless and Practice of Structural Equation Modeling with LISREL*. Taipei: Yeh Yeh Book Gallery, 2003.
- [2] K. Albrecht, & R. Zemke, *Service America! Doing Business in the New Economy*. Homewood, IL: Dow Jones-Irwin, 1985.
- [3] P. M. Bentler, "Confirmatory factor analysis via noniterative estimation: A fast, inexpensive method," *Journal of Marketing Research*, vol. 19, pp. 417-424, 1983.
- [4] P. M. Bentler, *Theory and implementation of EQS: A structural equations program*. Newbery Park, California: Sage, 1988.
- [5] M. W. Browne & R. Cudeck, "Single sample cross-validation indices for covariance structures," *Multivariate Behavioral Research*, vol. 24, no. 4, pp. 445- 455, 1989.
- [6] S. Côté, "A social interaction model of the effects of emotion regulation on work strain," *Academy of Management Review*, vol. 30, pp. 509-530, 2005.
- [7] T. DeWitt & Y. Liu, "The customer orientationloyalty model: The role of emotional contagion and rapport in the service encounter," in *AMA summer educators'conference: Enhancing knowledge development in marketing*, W. J. Kehoe & J. H. Lindgren, Jr., Eds. Chicago: AMA, 2002, PP. 321.
- [8] P. Ekman, *Emotions Revealed: Recognizing Faces and Feelings to Improve Communication and Emotional Life*. New York: Times Books, 2003.
- [9] P. Ekman, *Telling Lies: Clues to Deceit in the Marketplace, Politics, and Marriage*. New York: Norton, 2001.
- [10] P. Ekman & M. O'Sullivan, "Who can catch a liar?" *American Psychologist*, vol. 46, pp. 913-920, 1991.
- [11] P. Ekman, M. O'Sullivan, & M. G. Frank, "A few can catch a liar," *Psychological Science*, vol. 10, pp. 263-266, 1999.
- [12] H. A. Elfenbein, M. Foo, J. B. White, H. H. Tan, & V. C. Aik, "Reading your counterpart: The benefit of emotion recognition accuracy for effectiveness in negotiation," *Journal of Nonverbal Behavior*, vol. 31, pp. 205-223, 2007.
- [13] H. A. Elfenbein, A. A. Marsh, & N. Ambady, "Emotional intelligence and the recognition of emotion from facial expressions," in *The wisdom in feeling: Psychological processes in emotional intelligence*, L. Feldman Barrett & P. Salovey, Eds. New York: Guilford Press, 2002, PP. 37-59.
- [14] A. A. Grandey, "Emotion regulation in the workplace: A new way to conceptualize emotional labor," *Journal of Occupational Health Psychology*, vol. 1, pp. 95-110, 2000.
- [15] A. A. Grandey, "Emotions at work: A review and research agenda," in *Handbook of organizational behavior*, C. Cooper & J. Barling, Eds. London: Sage, 2008, PP.235-261.
- [16] A. A. Grandey, "When "the show must go on": Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery," *Academy of Management Journal*, vol. 46, pp. 86-96, 2003.
- [17] J. J. Gross, "The emerging field of emotion regulation: An integrative review," *Review of General Psychology*, vol. 2, pp. 271-299, 1998.
- [18] M. Groth, T. Hennig-Thurau, & G. Walsh, "Customer Reactions to Emotional Labor: The Roles of Employee Acting Strategies and Customer Detection Accuracy," *Academy of Management Journal*, vol. 52, no. 5, pp. 958-974, 2009.
- [19] T. Hennig-Thurau, "Customer orientation of service employees: Its impact on customer satisfaction, commitment, and retention," *International Journal of Service Industry Management*, vol. 15, pp. 460-478, 2004.
- [20] T. Hennig-Thurau, M. Groth, M. Paul, & D. Gremler, "Are all smiles created equal? How emotional contagion and emotional labor affect service relationships," *Journal of Marketing*, vol. 70, no. 3, pp. 58-73, 2006.
- [21] A. R. Hochschild, *The Managed Heart: Commercialization of Human Feeling*. Berkeley: University of California Press, 1983.
- [22] S. M. Kruml, & D. Geddes, "Exploring the dimensions of emotional labor: The heart of Hochschild's work," *Management Communication Quarterly*, vol. 14, pp. 8-49, 2000.
- [23] R. L. Oliver, *Satisfaction: A Behavioral Perspective on the Consumer*. New York: McGraw-Hill, 1997.
- [24] A. Rafaeli & R. I. Sutton, "Expression of emotion as part of the work role," *Academy of Management Review*, vol. 12, pp. 23-37, 1987.
- [25] M. Schmit, & S. Allscheid, "Employee attitudes and customer satisfaction: Making theoretical and empirical connections," *Personnel Psychology*, vol. 48, pp. 521-536, 1995.
- [26] B. Schneider & D. E. Bowen, "Employee and customer perceptions of service in banks: Replications and extension," *Journal of Applied Psychology*, vol. 70, pp. 423-433, 1985.
- [27] H. H. Tan, M. D. Foo, & M. H. Kwek, "The effects of customer personality traits on the display of positive emotions," *Academy of Management Journal*, vol. 47, pp. 287-296, 2004.
- [28] B. B. Wheaton, B. Muthen, D. F. Alwin, & G. F. Summers, "Assessing reliability and stability in panel models," in *Sociological Methodology*, D. R. Heiss, Ed. San Francisco, CA: Jossey-Bass, 1977.
- [29] V. A. Zeithaml, L. L. Berry, & A. Parasuraman, "The behavioral consequences of service quality," *Journal of Marketing*, vol. 60, no. 2, pp. 31-46, 1996.